CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/CEMENT/2015-16 Date: 12.08.2015

TEST REPORT ON CEMENT

*** CUSTOMER**	:	**Asst. Executive Engineer**, Vidyaranyapura Sub Division, BBMP, Bangalore.
***AGENCY**	:	**Mr. N. Keerthi,** #66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.
***NAME OF THE WORK**	:	Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.
***REFERENCE**	:	EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	10.08.2015
PERIOD OF TESTING	:	10.08.2015 to 12.08.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	28.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	160 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	475 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/SAND-Gradation/2015-16 : 12.08.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of Work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates

Sample Received on : 10.08.2015

Date of Testing : 12.08.2015

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	95.20	90-100	90-100	90-100	95-100
2.36	77.90	60-95	75-100	85-100	95-100
1.18	56.50	30-70	55-90	75-100	90-100
600 Micron	24.60	15-34	35-59	60-79	80-100
300 Micron	11.80	5-20	8-30	12-40	15-50
150 Micron	3.20	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/AGG/GR/2015-16 : 12.08.2015

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of Work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm)

Sample Received on : 10.08.2015

Date of Testing : 12.08.2015

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	96.44	95-100	85-100
20	36.16	30-70	0-20
10	19.80	10-35	0-5
4.75	1.54	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.11/NK /STEEL/2015-16 12.08.2015

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer**, Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. N. Keerthi,** #66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.
Name of the Work	:	Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	:	EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015
Date of Test	:	12.08.2015
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	514	558	13.30	O.K	O.K

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

****

Civil-tech Consultants & Engineers
#23/14, 7th Cross 3rd Stage 4th Block,
Shakthi Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.11/NK /STEEL/2015-16 12.08.2015

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer**, Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. N. Keerthi,** #66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.
Name of the Work	:	Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	:	EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015
Date of Test	:	12.08.2015
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.89	517	564	13.45	O.K	O.K

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

****

Civil-tech Consultants & Engineers
#23/14, 7th Cross, 3rd Stage, 4th Block,
Shakthi Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/CUBE/2015-16 19.09.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of the work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Reference** : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

*** Sample ID** : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 19.09.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	22.08.2015	19.09.2015	8.245	483.7	21.50
2	22.08.2015	19.09.2015	8.298	499.9	22.22
3	22.08.2015	19.09.2015	8.267	493.5	21.93

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/CUBE/2015-16 21.09.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of the work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Reference** : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

*** Sample ID** : Road Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 21.09.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.08.2015	21.09.2015	8.179	481.4	21.40
2	24.08.2015	21.09.2015	8.219	496.5	22.07
3	24.08.2015	21.09.2015	8.358	513.7	22.83

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/CUBE/2015-16 21.09.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of the work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Reference** : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

*** Sample ID** : Road Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 21.09.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.08.2015	21.09.2015	8.169	498.6	22.16
2	24.08.2015	21.09.2015	8.321	493.8	21.95
3	24.08.2015	21.09.2015	8.236	507.5	22.55

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/CUBE/2015-16 22.09.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of the work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Reference** : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

*** Sample ID** : Road Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 22.09.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.08.2015	22.09.2015	8.138	478.6	21.27
2	25.08.2015	22.09.2015	8.264	493.5	21.93
3	25.08.2015	22.09.2015	8.378	512.7	22.79

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.11/NK/CSR-08/918f/CUBE/2015-16 22.09.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Keerthi,**
#66, Anandappa Building Hospital Road, Yelahanka, Bangalore – 64.

*** Name of the work** : Development works at Vinayakanagara Air Force in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division, BBMP, Bangalore.

*** Reference** : EE/BTP/BBMP/E-PMT/10(16936)/WO/60/2015-16 Dated: 29.04.2015

*** Sample ID** : Road Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 22.09.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.08.2015	22.09.2015	8.184	482.4	21.44
2	25.08.2015	22.09.2015	8.263	496.7	22.08
3	25.08.2015	22.09.2015	8.394	514.3	22.86

* Information is furnished by the Customer/Representative

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

****

VIDYARANI P.K.
Technical Manager

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com